REMARKS

The Examiner is thanked for the thorough examination of the application. Claims 1, 2 and 4-18 are pending in the application. Claims 1 and 2 have been amended to generally correspond to originally presented claims 1 and 2. Newly presented claim 18 generally corresponds to original claim 3. Claims 4-17 have been amended to improve their language without reducing their scope, and the amendments to these claims have not been directed at overcoming a rejection. No new matter is believed to be added to the application by this amendment.

Rejection Under 35 USC §112, Second Paragraph

Claims 2, 8 and 16 have been rejected under 35 USC §112, second paragraph as being indefinite. This rejection is respectfully traversed.

In the Office Action, the Examiner asserts that claim 2 improperly depends from claim 1 because it fails to set out the amounts of entactin and nidogen set out in claim 1. However, claim 1 has been amended to remove recitations to entactin and nidogen, thus mooting this issue.

In the Office Action, the Examiner asserts that claims 8 and 16 set forth that the composition of claims 1 and 12 "comprise" vitronectin, which is unclear. However, claims 8 and 16 have been amended to set forth that the composition "further comprises" vitronectin.

As a result, claims 2, 8 and 16 are clear, definite and have full antecedent basis. This rejection is overcome and withdrawal thereof is respectfully requested.

Rejection Under 35 USC §103(a)

Claims 1, 2, 4-6 and 17 have been rejected under 35 USC §103(a) as being unpatentable over SCHNEIDER et al. (Journal of Vascular Surgery). This rejection is respectfully traversed for at least the reasons set forth below.

The present invention pertains to an intraluminal device with a coating to improve a vascular healing and to prevent thrombosis. The coating mainly includes a constituent with an anti-thrombogenic effect to minimize thrombosis. Additionally, in order to improve vascular healing, the coating includes constituents that improve binding of endothelial cells to the coating and constituents that contribute to the binding properties of the coating. Further, the coating includes constituents that improve attachment of the coating to the intraluminal device. For optimal characteristics, the inventors have carefully tailored the coating to contain these constituents in specific amounts.

Because of its effective anti-thrombogenic effect, heparan sulphate prevents forming of thrombosis. In order to minimize thrombosis, heparan sulphate is the major component (>50%) in the coating. The binding and attachment characteristics of the coating have been found to be sufficient with amounts of

Type IV collagen between 0.2% and 15% and amounts of laminin between 1% and 20%. These amounts result in a coating with an optimal ratio of anti-thrombogenic effect and binding or attachment properties. See claims 1 and 12 of the present invention.

In the article by SCHNEIDER et al., there is no teaching or suggestion of providing an intraluminal device with a coating that includes the claimed constituents in these specific amounts. In fact, SCHNEIDER et al. use a naturally produced subendothelial extracellular matrix as a coating. Because of the natural nature of the coating, it is impossible to vary the amounts of the constituents in this coating, specifically in the amounts according to the present invention. More specifically, SCHNEIDER et al. fails to disclose the use of heparan sulphate as a major component in the coating in order to prevent thrombosis. In contrast, the coating by SCHNEIDER et al. has been shown to have a proliferative effect with an enhanced probability of thrombosis. Therefore, the present invention is neither anticipated by nor obvious over SCHNEIDER et al.

Also, claim 6 of the present invention sets forth that the coating includes an antibiotic to prevent any risk of infection.

In contrast, SCHNEIDER et al. fails to disclose or suggest an antibiotic in the coating of an intraluminal device. SCHNEIDER et al. merely uses antibiotics during culturing of

cells to prevent any risk of contamination in the culture. This does not suggest the presence of an antibiotic in the final coating. Even more so, the bovine corneal endothelial cells specifically used to obtain the extracellular matrix of which the coating is formed, were not cultured with antibiotics. Therefore, claim 6 is also clearly patentable over SCHNEIDER et al.

Further, the Examiner unequivocally admits that SCHNEIDER et al. fails to disclose the claimed percentages of each component (see page 3, lines 21 and 22 of the Office Action). However, the Examiner fails to point out where in the SCHNEIDER et al. article, or in the prior art, a teaching or suggestion of these percentages may be found.

To establish a *prima facie* case of obviousness, "the prior art reference (or references when combined) must teach or suggest all the claim limitations." *MPEP §2143*. In addition, if a reference needs to be modified to achieve the claimed invention "there must be a showing of a suggestion or motivation to modify the teachings of that reference to the claimed invention in order to support the obviousness conclusion." *Sibia Neurosciences Inc. v. Cadus Pharmaceutical Corp.*, 225 F.3d 1349, 55 USPQ2d 1927 (Fed. Cir. 2000).

Additionally, the Examiner relies upon the Encyclopedia of Molecular Medicine as evidence of a composition of extracellular matrix. However, the Encyclopedia of Molecular

Medicine was copyrighted in 2002, which is after the October 2, 2000 international filing date and the September 30, 1999 EPO priority date of the parent application. As such, the Encyclopedia of Molecular Medicine cannot be used as prior art or for the purposes of showing the status of the prior art at the time the invention was made.

As a result, one of ordinary skill in the art would not be motivated by SCHNEIDER et al. to produce independent claims 1 and 12 of the present invention. A *prima facie* case of obviousness has not been made. Claims depending upon independent claim 1 or 12 are patentable for at least the above reasons. This rejection is overcome and withdrawal thereof is respectfully requested.

Allowable Subject Matter

The Examiner is thanked for indicating the allowability of claim 7.

Conclusion

The Examiner's rejections have been overcome, obviated or rendered moot. No issues remain. The Examiner is accordingly respectfully requested to place the application in condition for allowance and to issue a Notice of Allowability.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

Robert E. Goozner, Reg. No. 42,593
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

REG/lrs